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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/088,996	03/26/2002	Hideo Arikawa	ZU-412	8985

21839 7590 12/12/2003

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EXAMINER

LEE, RJP A

ART UNIT	PAPER NUMBER
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1713

DATE MAILED: 12/12/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/088,996

Applicant(s)

ARIKAWA ET AL.

Examiner

Rip A. Lee

Art Unit

1713

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 October 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 4-6 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other:

DETAILED ACTION

This office action follows a response filed on October 6, 2003. Applicants have amended claims 4-6 to define their invention clearly. Claims 1, 2 and 7-8 were canceled.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 4 is rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,448,321 to Tokita.

The prior art of Tokita teaches an aqueous dispersion comprising (A) a thermoplastic copolymer and (B) an alkali salt of montanic acid, montanic acid or an ester thereof (claim 4). The amount of the second component is 0.5-30 parts by weight (claim 5). In another embodiment, 3-25 wt % of a basic substance is incorporated into the composition to partially neutralize or saponify the fatty acid ester (claim 10). An example of the basic compound is ethanolamine (col. 8, line 43). Although the prior art claims are directed to ethylene-vinyl compounds as the thermoplastic component (A) of the aqueous dispersion, the inventors also

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contemplate use of styrene block copolymers and styrene-butadiene copolymer in lieu of, or in combination with, ethylene-vinyl compounds (col. 5, lines 41-44; col. 6, lines 1-3). As such, the subject matter of the present claim is disclosed fully in the prior art.

3. Claim 5 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,434,208 to Girgis.

The prior art of Girgis discloses a composition comprising a styrene/conjugated diene/vinyl pyridine terpolymer latex, and 0.5-3 wt % of carboxylated butadiene-styrene copolymer (claim 1).

4. Claim 6 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,201,848 to Kotani *et al.*

Kotani *et al.* teaches a block copolymer of an aromatic alkenyl compound and a conjugated diene prepared by emulsion polymerization in the presence of an amine (claim 1, abstract). The resulting polymer may be used in latex form (col. 6, line 1). Examples of amine include ethanolamine and *n*-propylamine (Example 16 and 18). Use of isopropanolamine and diethanol amine is taught in col. 3, lines 56-58.

Conclusion

5. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Prior Art

The prior art made of record but not relied upon is considered pertinent to the Applicant's disclosure.

U.S. Patent No. 5,670,263 to Gazeley discloses a rubber article made from combining a carboxylated styrene butadiene latex with styrene butadiene latex with MFFT < 10 °C. As the carboxylated rubber is the major component, the composition does not meet the requirement set forth in present claim 5.

U.S. Patent No. 4,097,551 teaches rubber modified dicarboxylic acid copolymer blends. The product is not in the form of a latex, and the carboxylated rubber component is the major component of the blend.

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JP 54-30246 discloses a thermoplastic resin composition comprised of a styrene butadiene copolymer containing elastomeric and non-elastomeric blocks, an ester wax based on montanic acid wax, and fatty acid amide. The reference does not teach use of alkanolamines recited in the present claims.

The following references show the state of the art with respect to carboxylated rubber or use of alkanolamines in rubber compositions.

U.S. Patent No. 4,537,926 to Kivel *et al.*

U.S. Patent No. 4,413,068 to Sinclair *et al.*

U.S. Patent No. 3,872,037 to MacCleod

U.S. Patent No. 3,720,637 to Backsai

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rip A. Lee whose telephone number is (703)306-0094. The examiner can be reached on Monday through Friday from 9:00 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reached at (703)308-2450. The fax phone number for the organization where this application or proceeding is assigned is (703)746-7064. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)308-0661.

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December 9, 2003



DAVID W. WU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 1700